

CLAIMS

What is claimed is:

1. An arc lamp comprising:
an anode;
a cathode;
a body defining a cavity, wherein the anode and the cathode are inside the cavity;
and
a filter mounted within the cavity.
2. The arc lamp of claim 1, further comprising a washer to hold the filter in place within the cavity.
3. The arc lamp of claim 1, wherein the filter includes an aperture through which the cathode goes.
4. The arc lamp of claim 3, wherein the filter is coated with a coating substantially over the aperture, the coating selected from a group consisting of an ultra violet suppression coating and an infrared rejection coating.
5. The arc lamp of claim 1, wherein the filter is made of narrow bandpass glass.
6. The arc lamp of claim 1, wherein the filter is made of heat absorbing glass.

7. The arc lamp of claim 1, wherein the filter comprises a circular quartz disc.
8. The arc lamp of claim 1, wherein the filter operates within a temperature range of -40°C to 500°C .
9. An arc lamp comprising:
 - a body defining a cavity;
 - an anode;
 - a cathode substantially aligned with the anode to define an arc gap in between;
 - a strut holding the cathode; and
 - a filter mounted within the cavity between the strut and the arc gap.
10. The arc lamp of claim 9, wherein the filter includes an aperture through which the cathode goes.
11. The arc lamp of claim 9, wherein the filter is coated with a coating substantially over the aperture, the coating selected from a group consisting of an ultra violet suppression coating and an infrared rejection coating.
12. The arc lamp of claim 9, wherein the filter is made of narrow bandpass glass.
13. The arc lamp of claim 9, wherein the filter is made of heat absorbing glass.

14. The arc lamp of claim 9, wherein the filter comprises a circular quartz disc.
15. The arc lamp of claim 9, wherein the filter operates within a temperature range of -40°C to 500°C .
16. A method to make an arc lamp, the method comprising:
mounting a filter within a cavity defined by a body of the arc lamp; and
coupling a washer to the filter to hold the filter in place.
17. The method of claim 16, wherein the filter defines an aperture substantially centered on the filter.
18. The method of claim 17, further comprising mounting a cathode through the aperture of the filter.
19. The method of claim 17, further comprising putting a coating substantially over the aperture, the coating selected from a group consisting of an ultra violet suppression coating and an infrared rejection coating.
20. The method of claim 16, wherein the filter is made of narrow bandpass glass.
21. The method of claim 16, wherein the filter is made of heat absorbing glass.

22. The method of claim 16, wherein the lamp operates within a temperature range of -40°C to 500°C .

23. The method of claim 16, wherein the filter comprises a circular quartz disc.